Ground Service Manual
for
Maintenance and Ground Service
Program Star
Alaska Operations

List

of

Effective Pages

List of Effective Pages

Page	Revision	Date
List of Effective Pages		
LOEP-1	#8	03/14/2012
Table of Contents		
TOC-1	#8	03/14/2012
TOC-2	#8	03/14/2012
Chapter 1 – Maintenance and Ground Service Program Star		
1-1	#8	03/14/2012
1-2	#8	03/14/2012
Chapter 2 – Personnel Qualifications and Duties		
2-1	#8	03/14/2012
2-2	#8	03/14/2012
Chapter 3 – Policies and Procedures		
3-1	#8	03/14/2012
3-2	#8	03/14/2012
3-3	#8	03/14/2012
Chapter 4 – Training Program		
4-1	#8	03/14/2012
4-2	#8	03/14/2012
4-3	#8	03/14/2012
4-4	#8	03/14/2012
4-5	#8	03/14/2012
4-6	#8	03/14/2012
Chapter 5 – Fuel Truck Operating Handbook		
5-1	#8	03/14/2012
5-2	#8	03/14/2012
5-3	#8	03/14/2012
5-4	#8	03/14/2012
Appendix 1 –		
Appendix 1-1	#8	03/14/2012

Table of

Contents

Table of Contents

List of Effective Pages

Table of Contents

Chapter 1 – Maintenance and Ground Service Program Star

A. Responsibility and Authority 1-1
B. Organizational Chart 1-1
C. Revisions 1-1
D. Manual Reviews 1-2
E. Management Responsibility Maintenance and Ground Service Star 1-2

Chapter 2 – Personnel Qualifications and Duties

A. Airport Ramp Personnel 2-1
B. Fuel Truck Personnel 2-1
C. Outlying Station Personnel 2-2

Chapter 3 – Policies and Procedures

A. Ramp Risk Assessments 3-1
B. Mail 3-1
C. Passengers 3-1
D. Baggage 3-2
E. Loading 3-2
F. Transfers 3-2
G. Start Cart 3-3
H. Vehicles 3-3
I. Tugs 3-3
J. Hand Signals 3-3

Chapter 4 – Training Program

Airport Ramp Services Personnel 4-1
Fuel Truck Personnel 4-3
Outlying Station Personnel 4-5

Chapter 5 – Fuel Truck Operating Handbook

A. Jet Fuel Truck 5-1
B. Truck checks 5-1
C. Driving the Truck 5-2
D. Fuel 5-2
E. Fueling Aircraft 5-2
F. Static Electricity 5-2
G. Safety and Fuel Spills 5-3
H. Fires 5-4

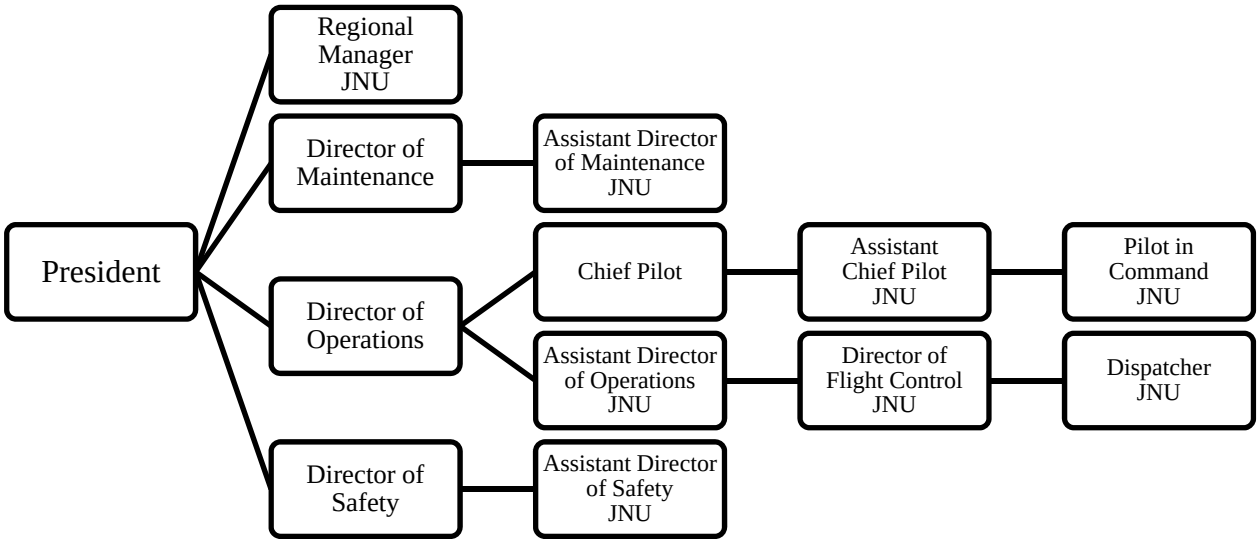
Appendix 1

List of Appendix Items ..... Appendix 1-1
Employee Feedback Form ..... Form K5EF-xx
Annual Star Manual Review ..... Form K5MR-xx
Vehicle Weekly Inspection ..... Form K5VWI-xx
Ramp Risk Assessment ..... Form K5RRA-xx
Ramp Risk Assessment Audit ..... Form K5RRAA-xx
Ramp Services Personnel Training Certificate ..... Form K5MFGT-xx
Fuel Personnel Training Certificate ..... Form K5MFFT-xx
Outlying Station Personnel Training Certificate ..... Form K5MFOSGT-xx
Aircraft Fueling Equipment Daily Checks ..... Form K5FTDC-xx
Aircraft Fueling Equipment Emergency Shut-Off Tests ..... Form K5FTET-xx
Jet Fuel Service Record ..... Form K5JFSR-xx

A. RESPONSIBILITY AND AUTHORITY

1. The Director of Maintenance is responsible for the Ground Service Manual. This person also exercises the authority to modify policies and procedures associated with this manual as conditions warrant, provided the modifications do not conflict with standard operating procedures outlined in the GOM, Training Manual, Operations Specifications and Federal Aviation Regulations.
2. During the absence of the Director of Maintenance, the Assistant Director of Maintenance will assume this responsibility.
3. The individual qualifications for this position must comply with FAR Part 119.71.

B. ORGANIZATIONAL CHART



C. REVISIONS

The Maintenance and Ground Service Star Manager is responsible for and has the authority to make changes to the program. All employees are encouraged to submit any constructive suggestions that will improve the effectiveness of any of the procedures, policies or processes outlined in the program. These suggestions should be outlined on the Employee Feedback Form (Form K5EF) and given to the Maintenance and Ground Service Star Manager for consideration and implementation.

1. Revisions to the Ground Service Manual will be made and inserted in the manual by the Maintenance and Ground Service Star Manager.
2. The Maintenance and Ground Service Star Manager shall insure that all employees are made aware of and familiar with each revision.

3. A list of effective pages will be included in each program. This list will show revisions by number and the date the revision was effective.

4. Each page of the program will show, in the footer, the revision, the page number and the revision date. No revision number or date indicates an original unrevised page. A vertical line in the right margin will indicate each revised paragraph.

D. MANUAL REVIEWS

The Maintenance and Ground Service Star Manager and senior management (Chief Pilot, Director of Operations or President) are required to review the Ground Service Manual annually. Form K5MR (Annual Star Manual Review) will be used to document this review. The completed form(s) will be retained, at a minimum, until the next subsequent review.

E. MANAGEMENT RESPONSIBILITY MAINTENANCE AND GROUND SERVICE STAR

The Director of Maintenance and/or designee (listed below) is responsible for the Maintenance and Ground Service Program Star and will attend the Medallion Training Program on Systems Safety and TapRoot.

The Maintenance and Ground Service Star Manager is qualified through experience and has the ability to demonstrate an understanding of policies, procedures, interfaces, and process measurement associated with this program.

Maintenance and Ground Service Star Manager ..... Jason Dungan

A. AIRPORT RAMP PERSONNEL

1. Qualifications:
    a. Minimum 18 years of age.
    b. Must be able to lift 70lbs. on a regular basis.
    c. Must be able to speak, read and write the English language.
    d. Must have a valid Driver's License and a clean driving record.
    e. Must be able to take and follow directions.
    f. Must be able to work without direction.
    g. Must be able to use a handheld radio.
    h. Must be able to work in adverse weather conditions.
    i. Drivers of passenger vehicles: minimum age 18 and meet MVR guidelines.
2. Duties:
    a. Organize all baggage off the bag belt as passengers check in.
    b. Assist pilots in aircraft loading/unloading of baggage, mail, and freight.
    c. Transfer freight to/from Alaska Airlines and Aero Services.
    d. Transfer UPS to the Cargo facility for processing.
    e. Expedite cargo between the Cargo facility and Airport terminal.
    f. Provide support for Turbine Engine starts with Start Cart.
    g. Service ground vehicles (Tugs and Vans) with engine oil and gasoline.
    h. Wash and vacuum ground service vehicles.
    i. Assist pilots with the installation and removal of wing covers.
    j. Record fluid levels on appropriate forms.
    k. Other duties as assigned by management.

B. FUEL TRUCK PERSONNEL

1. Qualifications:
    a. Must be at least 18 years of age.
    b. Must be able to lift 701bs. on a regular basis.
    c. Must have a valid Driver's License and a clean driving record.
    d. Must be able to use a handheld radio.
    e. Must be able to speak, read and write the English language.
    f. Must be able to take and follow directions.
    g. Must be able to work without direction.
    h. Must be able to work from ladders and around aircraft.
    i. Must be able to work in adverse weather conditions.
2. Duties:
    a. Inspect fuel truck daily and record results.
    b. Fueling of aircraft.
    c. Fill oil jugs for aircraft.
    d. Record fuel usage on appropriate form.
    e. Cleaning of fuel truck.

f. Keep fuel truck stocked with supplies (paper towels, window cleaner, aircraft oil and absorbent pads).
g. Ramp personnel duties.
h. Other duties as assigned by management.

C. OUTLYING STATION PERSONNEL

1. Qualifications:
    a. Minimum 18 years of age.
    b. Must be able to lift 70lbs. on a regular basis.
    c. Must be able to speak, read and write the English language.
    d. Must be able to take and follow directions.
    e. Must be able to work without direction.
    f. Must be able to work in adverse weather conditions.
    g. Drivers of passenger vehicles: minimum age 21 without passengers and 23 with passengers and meet MVR guidelines.
2. Duties:
    a. Answer phone, provide flight information and make reservations.
    b. Weigh and record baggage weights as passengers check in.
    c. Assist pilots in aircraft loading/unloading of baggage, mail, and freight.
    d. Process cargo shipments (Wings of Alaska, AS, UPS, FEDEX) to destination.
    e. Notify customers as freight shipments arrive.
    f. Deliver incoming U.S. Mail to Post Office within 30 minutes of arrival.
    g. Process and deliver UPS as directed by station manager.
    h. Process cargo shipments (Wings of Alaska, AS, UPS, FEDEX) to destination.
    i. Service ground vehicles (Vans) with engine oil and gasoline.
    j. Wash and vacuum ground service vehicles.
    k. Assist pilots with the installation and removal of wing covers.
    l. Other duties as assigned by management.

A. RAMP RISK ASSESSMENTS

Juneau Ramp and Fuel Personnel and Outlying Station Agents will fill out a Ramp Risk Assessment (Form K5RRA) at the beginning of each workday. One assessment per day is adequate unless conditions change. Blank forms are located near time clock in each work location. A Ramp Risk Assessment score between 0 and 8 is considered a low risk and requires no further action. A score between 9 and 16 is considered medium risk and the Ramp and Operations Personnel must concur on the value and sign the form. A score greater than 17 is considered high risk and Ramp and Operations Personnel should exercise a heightened awareness. Outlying Station Agents will turn in the form to station supervisors who will then communicate any scores greater than 17 to Juneau Dispatch. All Ramp Risk Assessment's will be kept on file for ninety days from the time they are completed. Quarterly audits will be performed on the completed forms. The Safety Officer will carry out the audits using the Ramp Risk Assessment Audit form. The audit material will be retained for one year.

B. MAIL

All mail will be weighed and listed on the Mail Reconciliation Sheet. Non-priority mail must also be sorted for each destination. The mail must be kept in a secure area and kept dry at all times. Mail must be loaded in the following priority:

a. White or blue and orange express bags and boxes
b. Red and blue box registered mail
c. Green bags with leather straps
d. Cardboard letter trays
e. White and green plastic tubs
f. Orange bags with leather straps
g. Priority parcels
h. Green corded bags
i. Brown canvas
j. White canvas
k. Parcel post

C. PASSENGERS

Passengers are checked-in at the airport ticket counter by a Customer Service Agent (CSA). Baggage is weighed and tagged appropriately and passenger body weight is entered into the reservation system to ensure an accurate manifest of passengers, baggage and freight for each flight. This manifest is hand delivered to the pilot in command by the CSA or Ramp Agent.

D. BAGGAGE

Baggage is received at both the cargo office and the airport counter. As bags are checked in at the counter they must be removed from the baggage belt and put on baggage carts or the Start Cart. It is important that bags are not allowed to backup on the bag belt, as the weight will cause the belt to slip and eventually fail.

E. LOADING

1. Dispatch shall schedule aircraft and assign loading and general ramp duties. They are also responsible for ensuring that those duties and tasks are accomplished as assigned to each ramp person throughout the day. Whenever a question should arise regarding ramp duties the dispatcher shall hold the ultimate authority in decision making.
2. The Pilot in Command holds the ultimate authority and shall make the final decision regarding aircraft loading.
3. It is the ramp personnel's job to assist pilots in the loading of aircraft. Passenger baggage has priority over mail and freight. Freight is generally moved in the order it is received with the exception of perishables. Perishables such as ice cream should be left in the freezer or the cooler until just prior to flight time. The weight for each piece of baggage and freight are found on the bag tag or the freight tag. When loading bags and freight it is imperative to keep track of the weight and location as it is loaded on the aircraft and inform the pilot of the weight and location.
4. Care must be taken not to exceed any aircraft limitations while loading. The Caravans have a weight and placement chart on the rear door to keep track of weight for each cargo pod compartment and the weight put inside the aircraft as it is being loaded.
5. Dispatch must be informed of any baggage, mail or freight that is bumped from a flight. Bumped baggage must be returned to the bag belt area for the next departure; mail and freight shall be kept dry and secure. Examples of dry and secure areas are the back of a van, chain cart, bag belt area or returned to the Cargo building.

F. TRANSFERS

1. Cargo is transferred between Alaska Airlines Cargo, Wings of Alaska Cargo and the Airport Terminal facility throughout the day.
2. UPS is generally transferred in the morning from the UPS facility on the Westside of the airport to Wings of Alaska Cargo facility for processing. These transfers are most often accomplished with a tug and chain cart; for smaller transfers a van can be used.
3. Throughout the day freight and baggage is expedited between the Airport Terminal and the Wings of Alaska Cargo facility.

G. START CART

The Start Cart consists of a small trailer, four large batteries, a battery charger and approximately 15 feet of power cord for aircraft starting and is towed with a Tug. It is used primarily to start the turbine powered aircraft and transporting baggage. The batteries should be kept charged throughout the day. When assisting an aircraft start, hand signals are used for communicating between the pilot and ramp person. These hand signals are covered in training and section J below.

H. VEHICLES

All fluid levels will be checked weekly and recorded on the Vehicle Weekly Inspection Form (Form K5VWI). The vans must be cleaned inside and out on a regular basis. Gasoline is purchased from Mike's Airport Express just north of the airport field, or Aero Services. Vans parked at the bag belt area must be backed in against the building. When backing any vehicle up to an aircraft it is mandatory to have a second person marshalling to help avoid hitting the aircraft and causing damage.

I. TUGS

All fluid levels will be checked weekly and recorded on the Vehicle Weekly Inspection Form (Form K5VWI). Fuel is purchased from Aero Services on the airport field because the tugs need to stay on the airport field.

J. HAND SIGNALS

Identify Gate

Purpose: Identifies to the pilot the position and readiness of the marshaller.

Description: Raise fully extended arms straight above head with the wands pointing up.

Straight Ahead

Purpose: Identifies to the pilot to continue forward progress of the aircraft by going straight.

Note: This signal does NOT mean "come to me."

Description: Bend extended arms at elbows and move wands up and down from chest height to head.

Turn Left (From pilot's point of view)

Purpose: Identifies the direction and radius of the turn to the pilot.

Description: With right arm and wand extended at a 90-degree angle to body, make 'Straight Ahead" signal with left hand. The rate of signal motion indicates to the pilot the rate of aircraft turn.

Turn Right (From pilot's point of view)

Purpose: Identifies the direction and radius of the turn to the pilot.

Description: With left arm and wand extended at a 90-degree angle to body, make 'Straight Ahead" signal with right hand. The rate of signal motion indicates to the pilot the rate of aircraft turn.

Normal Stop

Purpose: Identifies to the pilot how much further before the stop. The distance between the wands during slow closure will represent the gradual stopping which should occur when the wands cross.

Description: Fully extend arms and wands at a 90-degree angle to sides and slowly move to above head until wands cross.

Rate of closures should coincide, and the motion should be done slowly to indicate the amount of space or distance left for the aircraft to travel.

Emergency Stop

Purpose: Instructs an immediate stop. The pilot is to stop immediately.

CAUTION: Do not use this signal unless it is necessary, but do not hesitate to use it if, in your judgment, the aircraft is about to come in contact with something.

Description: Abruptly extend arms and wands to top of head, crossing wands.

Slow Down

Purpose: Indicates to the pilot the aircraft is traveling too fast.

Description: Move extended arms downward in a "patting" gesture, moving wands up and down from waist to knees.

Chocks Inserted

Purpose: Indicates to the pilot the chocks are in place.

Description: With arms and wands fully extended above head, move wands inward in a "jabbing" motion until the wands touch. Ensure an acknowledgement is received from pilot.

Pilot signal is thumbs pointing toward each other from fists.

Chocks Removed

Purpose: Indicates to the pilot the chocks have been removed.

Description: With arms and wands fully extended above head, move wands outward in a "jabbing" motion.

Pilot signal is thumbs pointing outward from fists.

Cut Engine

Purpose: Indicates to the pilot it is safe to shut down engine.

Description: Extend arm with wand forward of body at shoulder level, move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat.

Start Engine

Purpose: Indicates to the pilot the area around the aircraft is clear of people and equipment and it is safe to start the engine.

Description: Raise right arm to head level with wand pointing up and start a circular motion with hand, at the same time, with the left arm raised above head level, point at the engine.

Disconnect Start Cart

Purpose: Indicates to the pilot the Start Cart cable is disconnected.

Description: Hold arms fully extended above head, with left wand horizontal and right wand pointing up touching the left wand forming a "T", make a downward (pulling) motion with the right wand away from the left.

Pilot signal is to withdraw index finger from fist of other hand.

CAUTION: Do not disconnect power until a signal is received from the pilot.

Dispatch Aircraft

Purpose: Indicates to the pilot that marshalling assistance is being discontinued and to continue taxiing.

Description: Perform a standard salute with right hand and wand to dispatch the aircraft. Maintain eye contact with the pilot until the aircraft has begun to taxi.

AIRPORT RAMP SERVICES PERSONNEL

Objective: To provide ramp personnel with the skills necessary to serve Wings of Alaska in daily ground support services.

Prerequisites: Meet the qualifications in Chapter 2.

Elements:

1. Customer service:
    a. Escorting passengers on the ramp
    b. Assisting passengers on and off aircraft
    c. Use of stairs for loading passengers
2. Safety:
    a. Hearing protection
    b. Propeller avoidance
    c. Marshaling vehicles in close proximity to aircraft
    d. Below freezing temperatures and ice on the ramp
    e. Using the Start Cart to assist in starting aircraft
    f. Risk Assessments
    g. Safety Program
3. Baggage and Freight:
    a. Location of recorded weight on baggage and freight
    b. Where to find baggage and freight for each destination
    c. Transferring baggage and freight
    d. UPS
    e. Perishables
    f. Hazardous Materials
    g. Baggage Belt
    h. Loading priorities
4. Mail:
    a. Weighing priority mail and recording the weight
    b. Sorting non-priority mail for each destination
    c. Mail loading priorities
5. Hand Signals:
    a. Hand signals between pilots and ramp personnel
6. Emergency Response Plan:
    a. Accident reporting/ground vehicles
    b. Bomb/Terrorist threat

7. Aircraft Loading: (C207 & C208)
    a. Weight and Balance
    b. Floor load limits
    c. Station limits
    d. Load securing
    e. Caravan weight recording

Training Time: 16 hours – Initial[1]
3 hours – Recurrent[2]

Courseware: Aircraft POH, Emergency Response Plan, Safety Program, Vehicles, Cargo Facility, Hazardous Materials Operations Manual and Training Program, Company Forms and Ground Service Manual.

Instructional Method: Self Study, Lecture, Videos, OJT and demonstrated performance of practical scenarios.

Completion Standards: Trainee must demonstrate by written or oral testing an understanding of the material presented. A trainee has completed this curriculum when all required training times have been completed, all tests corrected to 100% and the proper entries made in the training records.

[1]Hazmat and Fuel truck training times can be credited towards the total training time
[2]Hazmat and Fuel truck training times can be credited towards the total training time

FUEL TRUCK PERSONNEL

Objective: To ensure that clean, usable fuel is delivered to aircraft in a safe and efficient manner and that all fuel trucks are operated according to airport safety standards.

Prerequisites: Meet the qualifications in Chapter 2.

Elements:

1. Truck Inspections:
    a. Daily Inspections:
        i. Oil and Fluid Levels (including fuel for truck and aircraft)
        ii. Sump Filters and Tanks
        iii. Walk around inspecting Lights, Placards, Leaks, Tires and Fire Extinguisher
        iv. Check Fuel Hose for kinks, abrasions, cuts etc., Check Nozzle
        v. Aircraft fueling equipment check form
    b. Monthly Inspections:
        i. Static System Continuity Test
        ii. Nozzle Screens
        iii. Fuel Hose
        iv. Signs and Placards
        v. Meter Seals
        vi. Fire Extinguishers
        vii. Emergency Shutdown System
        viii. Tank Interiors
        ix. Tank and Dome Covers
2. Fueling Procedures:
    a. Basic Procedures
        i. Bonding Cable
        ii. PTO Operation
        iii. Using Nozzle
        iv. Emergency Shutoff Valve
    b. Jet Truck
        i. Cessna 208 Caravan
            1. Ladder Use
            2. Safety Mat
            3. Working with Flapper Valve
        ii. Fuel service Record Form

3. Safety
    a. Fuel differences
        i. Jet Fuel
        ii. 100LL
    b. Fuel Spills
        i. Cleaning Up
        ii. Reporting
        iii. Dissipating and Nature of
    c. Fire Fighting
        i. Extinguisher Operation
        ii. Types of Fire
        iii. Properties of Burning Fuel
        iv. Safety Considerations
    d. Proper Clothing and Static Electricity
        i. Difference between Cotton, Wool, and Polyester
        ii. Properties of Static Electricity
        iii. Static Electricity Producers in Fueling
    e. Driving on the Ramp and Aircraft Right-of-Way
        i. Airport Speed Limits
        ii. Aircraft Right-of-Way
        iii. Driving Safety
        iv. Ramp Safety

Training Time: 1.5 hours – Initial
1 hour – Recurrent

Courseware: Fuel Truck, Fuel Truck Operating handbook.

Instructional Method: Self Study, Lecture, OJT and demonstrated performance of practical scenarios.

Completion Standards: At the discretion of the instructor an oral or written test may be administered, but is not necessary for completion. The instructor will insure that all trainees are knowledgeable in the subject matter. A trainee has completed this segment when all of the modules and required training times have been completed, all tests corrected to 100% and the proper entries made in the training records.

OUTLYING STATION PERSONNEL

Objective: To provide outlying station personnel with the skills necessary to serve Wings of Alaska in daily operations.

Prerequisites: Meet the qualifications in Chapter 2.

Elements:

1. Customer service:
    a. Answering phones
    b. Proper use of computer for reservations
    c. Checking-in of passengers
    d. Assisting passengers on and off aircraft
    e. Use of stairs for loading passengers
2. Safety:
    a. Hearing protection
    b. Propeller avoidance
    c. Marshaling vehicles in close proximity to aircraft
    d. Below freezing temperatures and ice on the ramp
    e. Risk Assessments
    f. Safety Program
3. Baggage and Freight:
    a. Location of recorded weight on baggage and freight
    b. Proper storage of baggage and freight for each destination
    c. UPS – incoming/outgoing procedures
    d. Perishables
    e. Hazardous Materials
    f. Loading priorities
4. Mail:
    a. Delivery of incoming mail to/from local post office
    b. Mail loading priorities
5. Hand Signals:
    a. Hand signals between pilots and outlying station personnel
6. Emergency Response Plan:
    a. Accident reporting/ground vehicles
    b. Bomb/Terrorist threat
7. Aircraft Loading: (C207 & C208)
    a. Weight and Balance
    b. Floor load limits
    c. Station limits
    d. Load securing
    e. Caravan weight recording

Training Time:	16 hours – Initial[1] 3 hours – Recurrent[2]
Courseware:	Aircraft POH, Emergency Response Plan, Safety Program, Vehicles, Cargo Facility, Hazardous Materials Operations Manual and Training Program, Company Forms and Ground Service Manual.
Instructional Method:	Self Study, Lecture, Videos, OJT and demonstrated performance of practical scenarios.
Completion Standards:	Trainee must demonstrate by written or oral testing an understanding of the material presented. A trainee has completed this curriculum when all required training times have been completed, all tests corrected to 100% and the proper entries made in the training records.

[1]Hazmat and Fuel truck training times can be credited towards the total training time
[2]Hazmat and Fuel truck training times can be credited towards the total training time

A. JET FUEL TRUCK (RED/WHITE TRUCK)

The Jet Fuel Truck holds 2,000 gallons of Jet-A. It is equipped with a 5-speed manual transmission. The fuel hose is located on the driver's side along with two of the three emergency fuel shutoff controls and the bonding cable. The third is a ring on the rear of the truck. It is a pull to shutoff type valve. The fuel filter and sump valves are located on the right side of the truck. Fire extinguishers are located on both sides of the truck in each rear compartment. The power takeoff or PTO control is located on the cab floor. A fuel meter, differential pressure gauge (maximum operating range – l0 PSI) and hose rewind button are next to the rewind drum.

1. SUMPING

   Sump the truck by draining a total of one to three gallons into a grounded white bucket. Look for sediment or water bubbles on bottom of the bucket. Note if it is cloudy or hazy; if so, sump truck again until it is clear. The fuel should be clear or a straw color. To sump the filter the PTO needs to be engaged. There are two sump points, one off the filter and one off the bottom of the tank. They are located halfway down on the passenger side. Sump the filter then sump the tank by opening the valve and pulling the t-handle. When you are finished sumping, double-check that all sump valves are closed, disengage the PTO and pour the sumped fuel into the waste oil tank in the hangar.

B. TRUCK CHECKS

1. Every morning an inspection of each fuel truck must be made. Check all fluids, oil, water, and fuel.
2. Check all tires for inflation with a rubber mallet. Inspect all lights and lenses.
3. Warm up the truck sufficiently. Do not engage the PTO. Do not high idle the truck while attempting to pump fuel; it will destroy the pump. Normal idle with the PTO engaged should not exceed 700 rpm. If a problem develops with normal idle speed notify maintenance.
4. Keep the truck clean of trash, oily rags, empty oil cans, etc.
5. Check the fuel hose for cuts, kinks, or abrasions. Engage system and look for bulges or leaks.
6. Check that the muffler and flame arrester are okay with no holes or cracks
7. Any rise in differential pressure is indicative of contamination, usually water but possibly particles as well. Check for contamination in truck fuel tank and pump/filter system as well as main tank.
8. Complete daily inspection checklist.
9. All aircraft fueling systems, including all filters, ground tanks and fuel trucks are maintained according to manufacturers' specifications and are the direct responsibility of the Director of Maintenance.

C. DRIVING THE TRUCK

1. Always start out in first gear. Make sure the PTO is not engaged before driving.
2. Never pull in front of an aircraft on the ramp that has its prop still turning. Wait for the pilot to shut off the engine before approaching the aircraft.
3. The Jet Truck has forward and rear drains on top of the tank. When filling the truck, check to ensure that the seal on the tank cap is good.
4. Always set brake when not driving.
5. Keep supplies of oil, sic-sacs, paper towels, windshield cleaner and absorbent pads in truck. Keep supplies stocked daily.

D. FUEL

1. Aviation fuels are designated by their lean mixture performance numbers. Visual identification is aided by color-coding different grades of fuel.
   AVGAS 80 – Red AVGAS 100 – Green AVGAS 100LL – Blue
2. Jet Fuel - colorless or straw.
3. The Fuel Truck Personnel shall keep Dispatch appraised of fuel quantities in the Jet Truck.

E. FUELING AIRCRAFT

1. Fuel orders are received from either dispatch or the pilots. Check to ensure that the proper grade and type of fuel is dispensed as slated on the aircraft fuel tank placard and that the correct quantity is put into the proper tanks.
2. When fueling aircraft on the ramp, always connect the static line to the aircraft before fueling. The nozzle on the hose has a squeeze handle that will automatically shut off if let go. Do not block open. Use care not to damage the inside of the fuel tank neck with the nozzle. Double check that gas caps are replaced properly. Do not lay or rest nozzle on airplane wing.
3. When fueling in the rain or snow, try to block the precipitation with a glove or hat. If the rain is heavy stop fueling. Finish fueling when precipitation subsides and advise the pilot to sump the aircraft tanks.

F. STATIC ELECTRICITY

1. The static line must always be connected to the aircraft during fueling, as the fueling process itself creates static. Flowing fuel creates static on its own, and the filter system creates the most static by a factor of 100 to 1.
2. When working with fuel, it is important not to create excess static electricity. Clothing, such as wool, silk, and polyester, create static whereas cotton does not. Metal on shoes may also spark; avoid wearing these items when fueling.
3. Radio transmissions should also be avoided when fueling.

4. Plastic funnels should never be used as plastic creates static. Plastic buckets should not be used when sumping the truck. A steel white bucket is provided and must be grounded when in use.
5. When refueling the truck from the bulk tank, keep the static line attached.
6. Static is also created when fuel falls through the air.
7. Flashlights can spark. Underwriters Laboratories require that flashlights used for fueling be of the vapor-proof type that don't spark.
8. Don't smoke or allow open flames within 100 feet of any fuel or fueling operations. Always use bonding cables when moving fuel.

G. SAFETY AND FUEL SPILLS

1. Use care dragging the hose around; keep the nozzle off the ground.
2. Check nozzle for contaminants before fueling.
3. Always give aircraft, either moving on their own power or undertow, the right-of-way.
4. When on the ramp, park close to the aircraft you are fueling so that other aircraft may get by.
5. Don’t drive close behind a jet aircraft with its engines running. The thrust from these engines can be very intense when the jet spools up.
6. Speed on main ramp is 20 miles per hour.
7. Stay off the runway and main taxi way.
8. Don't drive in the Part 121 ramp area.
9. Be conscious of personal safety at all times, especially around spills or fires.
10. Report all spills and fires to Wings of Alaska Dispatch. If a spill does occur, refer to Wings of Alaska spill contingency plan.
11. Jet fuel is extremely hazardous if splashed or spilled onto any part of the body. It also causes serious skin irritation and should be washed off immediately with soap and water. If fuel gets in your eyes, wash it out with clean, fresh water.
12. Avoid all sparks or ignition sources within 150 feet of spill. In every fuel spill, there is a possibility of fire; all that is needed is spark. Every spill should, therefore, be treated as potential fire. Fuel fumes, being heavier than air, will lie down low until dispersed.
13. Spills up to 10 feet should be cleaned up immediately with a fireguard upwind with at least a 150-pound dry powder extinguisher. Absorbent pads (which should be carried in the fuel truck at all times) or chemical cleaners should be used. Move all running vehicles out of the immediate area and the aircraft if necessary. Depending on the spill, it might be necessary to shut off the vehicles instead of moving them. Never drive through any part of the spill.
14. If the spill is over 10 feet, call the Airport Fire Department. If the spill is within 50 feet of an aircraft, evacuate the passengers and any unnecessary personnel. Post a fireguard upwind. Determine if the vehicles need to be moved. Follow direction from the Fire Department on clean-up procedures.
15. Used absorbent pads should be kept in a closed metal container in a safe area.

H. FIRES

1. The fire triangle is the three elements necessary to start and keep a fire going. They are heat, fuel, and oxygen. Remove anyone and the fire can no longer sustain itself.
2. Aviation fuel has certain hazard properties.
3. Flammability limits - the percentage of fuel in the air that will burn continuously once ignited.
4. Auto-ignition temperature – the temperature at which fuel will automatically ignite without any outside ignition source.
5. Flash point - when the fuel emits enough vapors to ignite, Avgas flash point is -40^{o}F, so Avgas can ignite in any weather or temperature. Jet A or aviation kerosene has a flash point of 100^{o}F. If ignited, jet fuel flames will spread at less than 100 feet per minute.
6. There are 3 basic types of fire:
   Class A – wood, paper, cloth, plastics, etc.
   Class B – liquids, grease, gas
   Class C – electrical
7. A fourth side of the fire triangle is the fire tetrahedron with the addition of chemical chain reaction. Once ignited, flames will spread at approximately 12 feet per second.
8. Fire extinguishers are labeled according to use. Extinguishers labeled A, B, & C are good on all fires. Ones labeled only B or C are good for B or C class fires and would be effective on small A class fire. Do not use A class extinguishers on class B or C fires as you might only spread the fire or electrocute yourself.
9. When using an extinguisher, carry it to the fire, pull the safety pin, point the nozzle at the base of the fire, press the discharge handle, and sweep the nozzle back and forth. Remember the acronym PASS (Pull, Aim, Squeeze, Sweep).
10. The average extinguisher carried on most trucks has only about 10 to 20 seconds of duration.
11. After the fire is extinguished, back away in case of re-ignition.

Appendix 1

List of Appendix Items

Employee Feedback Form ..... Form K5EF-xx
Annual Star Manual Review ..... Form K5MR-xx
Vehicle Weekly Inspection ..... Form K5VWI-xx
Ramp Risk Assessment ..... Form K5RRA-xx
Ramp Risk Assessment Audit ..... Form K5RRAA-xx
Ramp Services Personnel Training Certificate ..... Form K5MFGT-xx
Fuel Personnel Training Certificate ..... Form K5MFFT-xx
Outlying Station Personnel Training Certificate ..... Form K5MFOSGT-xx
Aircraft Fueling Equipment Daily Checks ..... Form K5FTDC-xx
Aircraft Fueling Equipment Emergency Shut-Off Tests ..... Form K5FTET-xx
Jet Fuel Service Record ..... Form K5JFSR-xx

EMPLOYEE FEEDBACK FORM

Employees are encouraged to use this form for communicating any suggestions to improve any of the procedures, policies or company processes currently in use. This form can and should also be used to communicate any irregularities that come to any employees' attention during the course of their duties.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Name (Optional): _____ Date: _____

Response:

_____

_____

_____

_____

_____

Name of person who responded: _____ Date: _____

ANNUAL STAR MANUAL REVIEW

MANUAL: _____

Revision #: _____

The Star Manager and senior management (Chief Pilot, Director of Operations or President) are required to review each policies and procedures Star Manual annually. This form will be used to document this review. The completed form will be retained, at a minimum, until the next subsequent review.

Star:
Safety*: (Manual:___ ERP: ___) CFIT: ___ Maint. & Grd Service: ___ Operational Control: ___ Internal Audit: ___
*The Safety Star requires a review of the Emergency Response Plan. Please use a separate form for each review.

Star Audit Point Revision #: ____

Star Manager Review

Name: _____ Date: _____

Does the manual continue to conform to the audit points for the Initial Star Evaluation?

Remarks: _____

_____

_____

_____

Do all references to the General Operations Manual still apply?

Remarks: _____

_____

_____

Additional Remarks: _____

_____

_____

_____

_____

Signature: _____

Senior Management Review

Name: _____ Title: _____ Date: _____

Feedback: _____

_____

_____

_____

_____

_____

_____

Signature: _____

SEA PORT AIRLINES

VEHICLE WEEKLY INSPECTION

VEHICLE: _____

MONTH: _____

Week	PRE START INSPECTION									AFTER START			SIGNATURE*	DATE
	FUEL QTY	OIL LEVEL	RADIATOR COOLANT LEVEL	GENERAL CONDITION	BATTERY	TIRES	LIGHTS	HORN	WIPERS	ENGINE OPERATION	HAND & FOOT BRAKES	AUTO TRANS FLUID LEVEL		
1														
DISCREPANCIES:														
CORRECTIVE ACTIONS:														
2														
DISCREPANCIES:														
CORRECTIVE ACTIONS:														
3														
DISCREPANCIES:														
CORRECTIVE ACTIONS:														
4														
DISCREPANCIES:														
CORRECTIVE ACTIONS:														
5														
DISCREPANCIES:														
CORRECTIVE ACTIONS:														

*SIGNATURE OF PERSON PERFORMING TASKS OR PERSON ACCEPTING RESPONSIBILITY THAT TASKS WERE PERFORMED

RETAIN ON FILE FOR 12 MONTHS

RAMP RISK ASSESSMENT

RAMP PERSONNEL: _____ DATE: _____ STATION: _____

INSTRUCTIONS: *Complete all sections before the start of each workday. Rampers will submit completed Ramp Risk Assessment to dispatch. Circle all that apply. Please write any suggestions on reverse side.*

PERSONNEL		WEATHER and RAMP CONDITIONS	
Shortage of Personnel on Shift	+4	Snow	+3
Working More than Four Days in a Row	+3	Rain	+1
Working Injured/Sick	+2	Fog	+2
New Ramper (less than 3 months)	+3	Dawn/Dusk Operations	+2
Recent Divorce	+4	Ice of Ramp; Slippery Conditions	+3
Recent Death in the Family	+4	Winds Greater than 25 Knots	+2
Illness in Family	+1	Temperature Below 32°F	+2

EQUIPMENT and SCHEDULES	
Shortage of Ground Service Equipment	+3
Shortage of Radios	+1
Bumped/backlogged Baggage	+2
Extra Flights on the Schedule	+2

POINT TOTALS	
PERSONNEL RISK:	_____
WEATHER AND RAMP CONDITION RISK:	_____
EQUIPMENT AND SCHEDULES:	_____
GRAND TOTAL:	_____

RISK FACTOR	TOTAL	ACTION
LOW	0-8	Normal Ramp Operations
MEDIUM	9-16	Ramp and Operations Personnel Must Concur
HIGH	17-GREATER	Heightened awareness should be exercised by both Ramp and Operations Personnel

Ramper Signature: _____ Operations Personnel Initials: _____

SEA PORT AIRLINES

RAMP RISK ASSESSMENT AUDIT

Quarter: _____

Date: _____ Ramper: _____

Did the ramper complete a Ramp Risk Assessment? Yes No

Did the weather conditions match what was circled? Yes No

Did the dispatcher sign and concur with the assessment? Yes No

Comments:

_____

_____

_____

_____

Date: _____ Ramper: _____

Did the ramper complete a Ramp Risk Assessment? Yes No

Did the weather conditions match what was circled? Yes No

Did the dispatcher sign and concur with the assessment? Yes No

Comments:

_____

_____

_____

_____

SEA PORT AIRLINES

TRAINING CERTIFICATE

RAMP SERVICES PERSONNEL

INITIAL & RECURRENT GROUND TRAINING

NAME: _____

CURRICULUM SEGMENT	MODULE *(if & as applicable)*	TRAINING CATEGORY*	HOURS REQUIRED	HRS CMPLD	ADD'L HRS (1)	DATE COMPLETED	INSTRUCTOR & REMARKS
GROUND TRAINING	CUSTOMER SERVICE		16.0 (INITIAL) 6.0 (REC)				
	SAFETY						
	BAGGAGE & FREIGHT						
	MAIL						
	HAND SIGNALS						
	ERP						
	AIRCRAFT LOADING						

*Enter the appropriate Training Category: (I=Initial; REC=Recurrent)

(1) Additional training time will be provided in case of unsatisfactory performance and will be entered in this column. Absence of additional training times indicates a satisfactory performance was achieved on the initial test.

TRAINEE CERTIFICATION

I certify that the foregoing information is a true record of the training received. The training times and completion dates are correct to the best of my knowledge.

Trainee's Signature: _____Date: _____

CERTIFICATION SIGNATURE

I certify that the foregoing information is a true record of the training given to the above-named individual. The results of this training were reviewed by me; and this individual possesses the knowledge and meets the requirements for satisfactory completion of this training. The training times and completion dates are correct to the best of my knowledge.

Signature: _____ Title: _____ Date: _____

TRAINING CERTIFICATE

FUEL PERSONNEL

INITIAL & RECURRENT FUEL TRUCK TRAINING

NAME: _____

CURRICULUM SEGMENT	MODULE *(if & as applicable)*	TRAINING CATEGORY*	HOURS REQUIRED	HRS CMPLD	ADD'L HRS (1)	DATE COMPLETED	INSTRUCTOR & REMARKS
GROUND TRAINING	TRUCK INSPECTIONS		1.5 (INITIAL) 1.0 (REC)				
	FUELING PROCEDURES						
	SAFETY						

*Enter the appropriate Training Category: (I=Initial; REC=Recurrent)

(1) Additional training time will be provided in case of unsatisfactory performance and will be entered in this column. Absence of additional training times indicates a satisfactory performance was achieved on the initial test.

TRAINEE CERTIFICATION

I certify that the foregoing information is a true record of the training received. The training times and completion dates are correct to the best of my knowledge.

Trainee's Signature: _____Date: _____

CERTIFICATION SIGNATURE

I certify that the foregoing information is a true record of the training given to the above-named individual. The results of this training were reviewed by me; and this individual possesses the knowledge and meets the requirements for satisfactory completion of this training. The training times and completion dates are correct to the best of my knowledge.

Signature: _____ Title: _____ Date: _____

SEA PORT AIRLINES

TRAINING CERTIFICATE

OUTLYING STATION PERSONNEL

INITIAL & RECURRENT GROUND TRAINING

NAME: _____

CURRICULUM SEGMENT	MODULE *(if & as applicable)*	TRAINING CATEGORY*	HOURS REQUIRED	HRS CMPLD	ADD'L HRS (1)	DATE COMPLETED	INSTRUCTOR & REMARKS
GROUND TRAINING	CUSTOMER SERVICE		16.0 (INITIAL) 6.0 (REC)				
	SAFETY						
	BAGGAGE & FREIGHT						
	MAIL						
	HAND SIGNALS						
	ERP						
	AIRCRAFT LOADING						

*Enter the appropriate Training Category: (I=Initial; REC=Recurrent)

(1) Additional training time will be provided in case of unsatisfactory performance and will be entered in this column. Absence of additional training times indicates a satisfactory performance was achieved on the initial test.

TRAINEE CERTIFICATION

I certify that the foregoing information is a true record of the training received. The training times and completion dates are correct to the best of my knowledge.

Trainee's Signature: _____ Date: _____

STATION MANAGER CERTIFICATION SIGNATURE

I certify that the foregoing information is a true record of the training given to the above-named individual. The results of this training were reviewed by me; and this individual possesses the knowledge and meets the requirements for satisfactory completion of this training. The training times and completion dates are correct to the best of my knowledge.

Signature: _____ Title: _____ Date: _____

CERTIFICATION SIGNATURE

I certify that the foregoing information is a true record of the training given to the above-named individual. The results of this training were reviewed by me; and this individual possesses the knowledge and meets the requirements for satisfactory completion of this training. The training times and completion dates are correct to the best of my knowledge.

Signature: _____ Title: _____ Date: _____

AIRCRAFT FUELING EQUIPMENT CHECKS

JET-A TANK TRUCK

DAILY – USE APPLICABLE RATING

MONTH: _____

DAY	GENERAL CONDITION	FILTER SUMPS ***RECORD RATING****	TANKER SUMPS ***RECORD RATING****	FILTER DIFF. PRESSURE ***10 PSI MAX***	HOSES; NOZZLES; SWIVELS	STATIC REELS; CABLES; CLAMPS	FIRE EXT.	ENGINE OIL; FLUIDS	SIGNATURE**
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

DISCREPANCIES:

CORRECTIVE ACTIONS:

*SUMP SAMPLE RATINGS: 1 – CLEAN; 2 – DIRTY

INITIAL ALL OTHER TASKS TO INDICATE ACCOMPLISHMENT

**SIGNATURE OF PERSON PERFORMING TASKS OR PERSON ACCEPTING RESPONSIBILITY THAT TASKS WERE PERFORMED

RETAIN ON FILE FOR 12 MONTHS

SEA PORT AIRLINES

AIRCRAFT FUELING EQUIPMENT
EMERGENCY SHUT-OFF TESTS
JET-A TANK TRUCK
QUARTERLY

DATE	RESULTS	SIGNATURE*	DATE	RESULTS	SIGNATURE*

*SIGNATURE OF PERSON PERFORMING TASK OR PERSON ACCEPTING RESPONSIBILITY THAT TASK WERE PERFORMED

RETAIN ON FILE FOR 12 MONTHS

SEA PORT AIRLINES

JET FUEL SERVICE RECORD

JET-A TANK TRUCK

DATE: _____

AIRCRAFT N#	GALLONS	REMAINING	INITIALS